

Amendments To The Claims:

This listing of the claims will replace all prior versions and listings of the claims in the application.

Listing of the Claims:

1. (Canceled)

2. (Currently Amended) ~~The apparatus in claim 1,~~ A 2D data collection sensor comprising:
an image sensor; and
an illumination module coupled to the image sensor, the illumination module comprising a plurality of reflectors that reflect lights of a light source and collectively generate a uniform illumination pattern with sharp edges both for illuminating a target data area and providing visual aiming assistance, wherein there is a distinct light source element per reflector, wherein each reflector comprises an opaque reflective surface with an aperture formed by the reflective surface, the light source emits light onto the reflective surface and through the aperture onto the target data area, wherein a curvature and shape of the reflective surface is curved for optimal uniformity and sharp edges of the illumination pattern,; wherein each illumination pattern generated by each reflector matches all other illumination pattern generated by all other reflectors and collectively generate a uniform illumination pattern.

3. (Previously Presented) The apparatus in claim 2 wherein the uniform illumination pattern matches the field of view of the image sensor.

4. (Currently Amended) ~~The apparatus in claim 1,~~ A 2D data collection sensor comprising:

an image sensor; and

an illumination module coupled to the image sensor, the illumination module comprising a plurality of reflectors that reflect lights of a light source and collectively generate a uniform illumination pattern with sharp edges both for illuminating a target data area and providing visual aiming assistance, wherein there is a distinct light source element per reflector, wherein each reflector comprises a transparent solid with a reflective internal surface, light from the light source enters the solid, is reflected by the reflective surface and exits through the solid onto the target data area, wherein a curvature and a shape of the reflective surface is curved for optimal uniformity and sharp edges of the illumination pattern; wherein each illumination pattern generated by each reflector matches all other illumination pattern generated by all other reflectors and collectively generate a uniform illumination pattern.

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5. **(Previously Presented)** The apparatus in claim 4 wherein the uniform illumination pattern matches the field of view of the image sensor.

6. **(Previously Presented)** The apparatus in claim 2, wherein the light source comprises an LED.

7. **(Canceled)**

8. **(Currently Amended)** ~~The apparatus in claim 7~~ A 2D imaging barcode reader comprising:

an image sensor; and

an illumination module coupled to the image sensor, the illumination module comprising a plurality of reflectors that reflect light of a light source and collectively generate a uniform illumination pattern with sharp edges both for illuminating

a target data area and providing visual aiming assistance for a target barcode, wherein

there is a distinct light source element per reflector, wherein each reflector comprises an

opaque reflective surface with an aperture formed by the reflective surface, the light

source emits light onto the reflective surface and through the aperture onto the target

data area, wherein a curvature and shape of the reflective ^{surface} is curved for optimal uniformity

and sharp edges of the illumination pattern; wherein each illumination pattern generated

by each reflector matches all other illumination pattern generated by all other reflectors

and collectively generate a uniform illumination pattern.

9. **(Previously Presented)** The apparatus in claim 8 wherein the uniform

illumination pattern matches the field of view of the image sensor.

10. **(Currently Amended)** ~~The apparatus in claim 7~~ A 2D imaging barcode

reader comprising:

an image sensor; and

an illumination module coupled to the image sensor, the illumination

module comprising a plurality of reflectors that reflect light of a light source and

collectively generate a uniform illumination pattern with sharp edges both for illuminating

a target data area and providing visual aiming assistance for a target barcode, wherein

there is a distinct light source element per reflector, wherein each reflector comprises a

transparent solid with a reflective internal surface, light from the light source enters the

solid, is reflected by the reflective surface and exits through the solid onto the target data

area, wherein a curvature and a shape of the reflective surface is curved for optimal

uniformity and sharp edges of the illumination pattern; wherein each illumination pattern

generated by each reflector matches all other illumination pattern generated by all other

reflectors and collectively generate a uniform illumination pattern.

11. **(Previously Presented)** The apparatus in claim 10 wherein the uniform illumination pattern matches the field of view of the image sensor.
12. **(Previously Presented)** The apparatus in claim 8, wherein the light source comprises an LED.
13. **(Canceled)**
14. **(Canceled)**
15. **(Canceled)**